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# Uniform Peanut Performance Tests 1993

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# ABSTRACT

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This publication provides the results of cooperative research among the U.S. Department of Agriculture and certain state universities in the 1993 Uniform Peanut Performance Tests. These tests evaluate the adaptability of advance peanut breeding lines in the major peanut-producing states: Alabama, Florida, Georgia, North Carolina, Oklahoma, Texas, and Virginia. Included are summaries of yields and market grades from the peanut performance tests and also summaries on planting, harvesting, soil type, soil analyses, mineral amendments, rainfall, irrigation, and pesticides.

Keywords: *Arachis hypogaea* L., groundnut, yield, market grade

Mention of trade names or commercial products in this publication is solely for the purpose of providing specific information and does not imply recommendation or endorsement by the U.S. Department of Agriculture over others not mentioned.

Listing of yield performance in this publication is solely for the purpose of providing specific information and does not constitute a recommendation of a cultivar by the U.S. Department of Agriculture or by a cooperating state experiment station. Recommendations of cultivars for specific geographic adaptation and cultural management are made in some states by the Cooperative Extension Service.

While supplies last, single copies of this publication may be obtained at no cost from Dr. Terry A. Coffelt, USDA-ARS, U.S. Water Conservation Laboratory, 4331 East Broadway Road, Phoenix, AZ 85040-8832.

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This publication presents cooperative research among the U.S. Department of Agriculture and state universities located throughout the principal peanut-producing areas of the United States. We are indebted to the contributors, who supplied seed and conducted the tests, collected the performance data, read the manuscript, and gave permission for publication. We are grateful to Ruth Waldo of the U.S. Department of Agriculture, Agricultural Research Service, for her skillful assistance in organizing the tabular data and preparing the manuscript.

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# Uniform Peanut Performance Tests 1993

**Terry A. Coffelt, Editor, in cooperation with State Agricultural Experiment Stations in Alabama, Florida, Georgia, North Carolina, Oklahoma, Texas, and Virginia**

To evaluate potential new peanut cultivars in the major peanut-producing areas in the United States, the Uniform Peanut Performance Test (UPPT) was established through an informal agreement among collaborating scientists and coordinated by USDA's Agricultural Research Service. The UPPT serves as a valuable breeding tool for measuring the adaptability of experimental lines compared to the adaptability of check cultivars over a wide range of growing conditions. The results provide the cooperators as well as the peanut growers with information on the performance of existing and potential cultivars in Alabama, Florida, Georgia, North Carolina, Oklahoma, Texas, and Virginia.

Each year since 1972, the UPPT has been conducted by experienced personnel using sound experimental designs. Each cooperator has the option of selecting plot size, seeding rate, cultural practices, and harvesting practices that are commonly used in peanut-breeding investigations at his or her participating station. Specific cultural practices are summarized by test location.

After preliminary evaluation for at least 2 years in local tests, breeders may propose peanut-breeding lines for these regional trials. New entries should in most respects equal the local check cultivar of a similar market type and should be superior to it in one or more characteristics. Cooperators may also include additional entries in the UPPT at the test location under their supervision. A new entry is accepted for a maximum of 3 years unless a breeder or cooperator requests continuance or discontinuance.

## MATERIALS AND METHODS

The 1993 entry list for the UPPT's (local checks not included) is shown in table 1.

Because of continued restrictions in some states on shipping and receiving seed due to the presence of peanut stripe virus, participants in Stephenville, TX, were able to test entries only after seed increase in the greenhouse. Dr. D.A. Knauff withdrew as a cooperator at the Gainesville, FL,

location. Workers at the other locations were able to participate in a national test despite the onset of peanut stripe virus.

No Spanish- or Valencia-type entries were submitted for testing in 1993, so a national Spanish- or Valencia-type test was not conducted. However, data are reported for 11 Spanish- and Valencia-type cultivars for Tifton, GA. Eight Runner-type entries (GA T-2844, GA T-2846, GA T-2741, GA T-2842, UF 79308-3, UF 91108, TX 896100, and OK-CF83-126), and the Florunner and NC 7 checks were tested at eight locations (Suffolk, VA; Lewiston, NC; Tifton, GA; Marianna, FL; Headland, AL; College Station and Stephenville, TX; and Fort Cobb, OK).

Yields are expressed in pounds per acre. Mean separations were based on the Waller-Duncan multiple range test. Values within the same column followed by the same letter are not significantly different at the 5% probability level.

Grade quality factors were determined according to Federal-state inspection service standards. Minimum SMK (sound mature kernel) screen sizes are 15/64 by 3/4 inch for Spanish and Valencia types, 15/64 by 1 inch for Virginia types, and 16/64 by 3/4 inch for Runner types. The agronomic and cultural practices for 1993 varied with location (tables 2-4). The diversity among locations for these variables limits the comparison of entries to individual tests.

## RESULTS

Yield and grade results for Virginia-Runner-type peanuts from eight locations are presented in tables 5-12. Yield and grade results from one location for Spanish-Valencia-type peanuts are presented in table 13. Mean yields by location and production area are presented in table 14.

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## DEFINITION OF DATA TERMS

The following definitions of data terms are used with tables 6-15:

DK	Damaged kernels
g/100 Seed	Weight in grams per 100 sound mature seeds
OK	Other kernel
% DK	Percentage of DK's that ride the minimum screen size for SMK's and defective splits
% ELK	Percentage of extra-large kernels that ride a screen 21.5/64 by 1 inch
% Fancy	Percentage of in-shell peanuts that ride the 34/64-inch spacing set on the presizer
% Meat	Percentage of all kernels in the shelling sample, including SMK's, SS's, OK's, and DK's
% OK	Percentage of OK's that pass through the minimum screen size for SMK's
% TSMK	Percentage of total sound mature kernels equal to the percent summation of SMK's and SS's
SMK	Sound mature kernel
SS	Sound split



**Table 1. Cultivars and experimental lines, market type, and originating breeder(s)**

Entry	Type	Originating breeders
NC 7	Va <sup>*</sup>	J.C. Wynne, R.W. Mozingo
Florunner	Ru <sup>†</sup>	A.J. Norden, W.A. Carver, R.W. Lipscomb
GA T-2741 <sup>‡</sup>	Ru	W.D. Branch
GA T-2842 <sup>‡</sup>	Ru	W.D. Branch
GA T-2844 <sup>‡</sup>	Ru	W.D. Branch
GA T-2846 <sup>‡</sup>	Ru	W.D. Branch
UF 79308-3 <sup>‡</sup>	Ru	D.W. Gorbet, D.A. Knauft
UF 91108 <sup>‡</sup>	Ru	D.W. Gorbet, D.A. Knauft
TX 896100 <sup>‡</sup>	Ru	O.D. Smith, C.E. Simpson
OK-CF83-126 <sup>‡</sup>	Ru	J.S. Kirby

<sup>\*</sup> Va = Virginia market type.

<sup>†</sup> Ru = Runner market type.

<sup>‡</sup> Experimental line, unreleased at time of testing. However, GA T-2741 has been released as Georgia Browne and UF 79308-3 has been released as Andru 93 since testing began.

**Table 2. Summary of planting, harvesting, and soil type from test locations**

Location	Type	Date planted	Date dug	Repli-cations	Seed rate (seed/ft)	Harvest row spacing (inch)	Harvest plot size (ft <sup>2</sup> )	Soil type
10 <sup>*</sup>	VA-RU <sup>†</sup>	5-13	10-4	4	2.7	36	120	Suffolk fsl <sup>‡</sup>
20	VA-RU	5-11	10-6	4	1.2	36	144	Norfolk sl
30	VA-RU	4-22	8-30, 9-14, 9-27, 10-7	6	5.0	32+40	120	Tifton ls
50	VA-RU	6-8	10-18, 10-25, 11-2	4	4.0	36	120	Dothan ls
60	VA-RU	5-17	10-15	6	4.8	36	90	Padina sl
70	VA-RU	5-21	10-27	6	4.3	36	90	Windthorst fsl
80	VA-RU	5-25	11-9	6	5.0	36	96	Cobb fsl
90	VA-RU	4-30	9-14, 9-17, 10-1	4	6.0	36	120	Dothan ls

<sup>\*</sup> 10 = Suffolk, VA; 20 = Lewiston, NC; 30 = Tifton, GA; 50 = Marianna, FL; 60 = College Station, TX; 70 = Stephenville, TX; 80 = Fort Cobb, OK; 90 = Headland, AL.

<sup>†</sup> VA-RU = Virginia-Runner.

<sup>‡</sup> fsl = fine sandy loam; sl = sandy loam; ls = loamy sand.

**Table 3. Summary of soil analyses and mineral amendments from test locations**

Location	Soil analyses					Fertilizer (lb/acre)	Gypsum (lb/acre)	Lime (lb/acre)	Boron (lb/acre)
	pH	P <sub>2</sub> O <sub>5</sub> (lb/acre)	K <sub>2</sub> O (lb/acre)	Ca (lb/acre)	Mg (lb/acre)				
10*	6.2	21	75	395	35	0	800	0	0.5
20	5.9	51	42	66	10.9	0	760	0	0.5
30	6.8	95	60	599	117	500 (3-9-18)	1,200	0	0.5
50	6.0	78	133	545	64	850 (3-9-18)	1,000	2,000	1.1
60	—	—	—	—	—	335 (6-18-18)	500	0	0
70	7.3	6	266	1,668	338	235 (17-17-17)	750	0	0
80	6.4	72	344	—	—	137 (18-46-0)	0	2,000	0
90	6.0	61	153	700	130	300 (13-13-13)	700	2,000	0.5

\* 10 = Suffolk, VA; 20 = Lewiston, NC; 30 = Tifton, GA; 50 = Marianna, FL; 60 = College Station, TX; 70 = Stephenville, TX; 80 = Fort Cobb, OK; 90 = Headland, AL.

— Data not available.

**Table 4. Summary of rainfall, irrigation, and pesticides from test locations**

Location	Rain-fall (inch)*	Irri-gation (inch)	Pesticide		
			Herbicide	Fungicide	Other
10 <sup>†</sup>	10.71	0.00	Vernam, Balan, Lasso, Dual, Gramoxone, Alanap	Bravo, Rovral, Vapam	Lorsban, Asana, Orthene, Comite
20	13.32	2.50	Vernam, Prowl, Dual, Butoxone, Poast	Bravo, Vapam, Terraclor, Kocide	Comite, Lorsban, Asana, Orthene
30	15.51	5.90	Balan, Vernam, Basagran, Poast, 2,4-DB, Tough	Bravo, Lorsban	Temik, Lannate, Orthene
50	26.23	3.00	Prowl, Vernam, Dual, Basagran, Starfire, Pursuit	Bravo	Dipel, Disyston, Asana
60	25.36	11.00	Pursuit, Treflan, Poast, Basagran, Dual, Cobra	Bravo, Terraclor	Omite
70	14.41	13.25	Treflan, Dual	Bravo, Rovral	
80	14.00	27.00	Dual, Prowl, Pursuit	Bravo, Dithane	Orthene, Lorsban Comite
90	14.64	8.45	Sonalan, Pursuit, Starfire, 2,4-DB, Basagran	Bravo	Temik, Lannate

\* Rainfall is maximum amount during growing season for locations with multiple digging dates. Early digging dates generally have less rainfall and irrigation.

<sup>†</sup> 10 = Suffolk, VA; 20 = Lewiston, NC; 30 = Tifton, GA; 50 = Marianna, FL; 60 = College Station, TX; 70 = Stephenville, TX; 80 = Fort Cobb, OK; 90 = Headland, AL.

**Table 5. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at Suffolk, VA (nonirrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
NC 7	2,577 ab <sup>†</sup>	79.0	62.8	3.8	1.3	67.9	45.5	98.3
Florunner	2,269 b	3.3	64.8	3.8	1.0	69.6	17.8	57.6
GA T-2741	2,333 ab	0.8	67.8	4.8	0.0	72.6	7.5	44.8
GA T-2842	2,632 a	4.5	69.5	3.3	0.5	73.3	19.8	55.7
GA T-2844	2,559 ab	29.0	68.3	2.8	1.0	72.1	32.3	61.1
GA T-2846	2,669 a	2.5	70.8	4.3	0.8	75.9	14.0	55.1
UF 79308-3	2,487 ab	8.3	68.0	4.0	0.8	72.8	24.8	64.7
UF 91108	2,378 ab	12.8	68.3	3.0	1.3	72.6	37.3	67.0
TX 896100	2,351 ab	18.5	69.0	3.3	1.3	73.6	34.8	66.9
OK-CF83-126	1,588 c	2.3	56.0	4.8	0.5	61.3	8.3	43.2

\* Contributing author Coffelt reported that 1993 was the driest growing season since 1980. Severe drought limited peanut yields, growth, and quality. Stands were good for all entries, and no serious disease or insect problems were observed. Early rains enabled plants to set a large number of pods, but drought from mid- through late-season resulted in aborted, single-seeded, and partially filled pods.

<sup>†</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.

**Table 6. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at Lewiston, NC (irrigated)**

<b>Entry</b>	<b>Yield (lb/acre)</b>	<b>% Fancy</b>	<b>% TSMK</b>	<b>% OK</b>	<b>% DK</b>	<b>% Meat</b>	<b>% ELK</b>	<b>g/100 Seed</b>
NC 7	4,054 a*	86.0	72.0	1.0	0.0	73.0	61.0	104.0
Florunner	3,358 bc	6.0	68.0	2.0	0.0	70.0	20.0	57.0
GA T-2741	2,745 de	2.0	63.0	4.0	0.0	67.0	4.0	41.0
GA T-2842	3,630 ab	6.0	68.0	3.0	0.0	71.0	23.0	57.0
GA T-2844	3,282 bc	18.0	66.0	3.0	0.0	69.0	29.0	60.0
GA T-2846	3,025 cd	3.0	68.0	2.0	0.0	70.0	18.0	55.0
UF 79308-3	2,352 ef	11.0	67.0	2.0	0.0	69.0	23.0	65.0
UF 91108	3,524 b	8.0	69.0	2.0	0.0	71.0	34.0	65.0
TX 896100	3,433 bc	10.0	67.0	3.0	0.0	70.0	27.0	60.0
OK-CF83-126	2,163 f	2.0	60.0	3.0	0.0	63.0	9.0	45.0

\* Values within same column followed by same letter are not significantly different at the 5% probability level.

**Table 7. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at Tifton, GA (irrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
NC 7	3,827 ab <sup>†</sup>	94.3	66.0	1.2	6.8	74.0	45.6	96.8
Florunner	2,395 fg	6.6	71.3	5.2	2.0	78.5	8.0	57.2
GA T-2741	3,825 ab	0.0	72.5	5.5	1.0	79.0	1.9	40.9
GA T-2842	3,165 cd	5.0	70.6	3.6	3.1	77.3	14.0	53.7
GA T-2844	3,955 a	24.8	68.9	3.6	3.3	75.8	26.5	62.0
GA T-2846	2,488 fg	7.4	76.0	2.7	1.9	80.6	20.1	58.6
UF 79308-3	3,216 cd	7.3	67.0	7.2	2.4	76.6	10.0	58.2
UF 91108	4,054 a	6.5	75.1	2.8	1.8	79.7	44.7	69.8
TX 896100	4,033 a	11.6	71.6	3.3	3.6	78.5	20.8	60.4
OK-CF83-126	2,683 ef	2.6	68.1	6.5	0.8	75.4	6.7	46.5
<b>Local checks</b>								
Marc I	3,417 bc	3.2	65.1	9.5	2.6	77.2	5.7	53.9
VA 93B	3,214 cd	89.7	63.2	1.6	6.3	71.1	35.7	93.2
GA 901619	2,966 de	1.9	70.0	4.9	1.7	76.6	10.6	51.6
Southern Runner	2,634 e-g	1.2	69.6	4.2	4.2	78.0	12.2	52.7
WR-100	2,338 fg	50.4	68.5	2.3	5.4	76.2	38.2	75.2
Florigiant	2,229 g	83.5	67.1	2.0	4.7	73.8	26.4	89.2

\* Contributing author Branch stated that very good stands were obtained by irrigation during an early season drought. Canopy growth and development was fair to good during the growing season. White mold (*Sclerotium rolfsii* Sacc.) was the predominant pathogen. Tomato spotted wilt virus was also observed but at a moderately low incidence. Differential harvest dates were as follows: Aug. 30 = NC 7, Marc I, VA 93B, UF 79308-3, and GA T-2844; Sep. 14 = Florigiant, Florunner, TX 896100, OK-CF83-126, GA T-2842, and GA 901619; Sep. 27 = GA T-2741, WR-100, and GA T-2846; and Oct. 7 = Southern Runner and UF 91108. GA T-2846 was dug too late.

<sup>†</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.



**Table 8. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at Marianna, FL (irrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
NC 7	5,605 a-d <sup>†</sup>	97.8	78.8	0.1	0.0	78.8	65.1	125.1
Florunner	5,074 f-i	15.2	83.3	0.5	0.0	83.8	27.8	72.6
GA T-2741	4,903 hi	0.0	80.5	1.9	0.0	82.4	3.4	44.9
GA T-2842	5,338 c-g	4.2	80.3	1.1	0.0	81.5	19.8	63.5
GA T-2844	5,649 a-c	20.6	80.1	0.5	0.0	80.5	35.7	68.6
GA T-2846	5,954 a	3.4	82.9	0.9	0.0	83.8	25.0	66.7
UF 79308-3	5,489 b-e	17.3	80.6	0.9	0.0	81.5	28.2	74.6
UF 91108	5,176 e-h	11.4	82.4	0.8	0.0	83.2	47.9	79.3
TX 896100	5,833 ab	11.3	80.7	0.4	0.0	81.1	32.7	66.3
OK-CF83-126	4,050 j	1.1	76.2	2.3	0.0	78.4	10.5	48.7
<b>Local checks</b>								
F 92107	5,564 b-e	2.2	79.0	1.7	0.0	80.7	27.0	59.9
UF 85112	5,422 c-f	9.8	79.5	0.7	0.0	80.1	21.6	75.7
UF 79308-1-Z23	5,314 c-g	3.2	80.3	1.3	0.0	81.6	22.0	67.3
F 439OT	5,239 d-h	6.9	83.6	0.3	0.0	83.9	23.8	69.6
F 92118	5,013 g-i	1.7	81.2	1.6	0.0	82.8	28.9	66.1
F 1250	4,969 g-i	24.3	81.1	0.9	0.0	82.0	32.3	71.1
F 81206-2-Z16	4,885 hi	28.2	76.9	0.6	0.0	77.4	42.9	78.5
F 1316	4,745 i	35.3	81.9	0.6	0.0	82.5	30.5	73.6

\* Contributing author Gorbet observed that the late planting of this test probably limited the yield potential of all entries. Primary disease pressure was from white mold and rhizoctonia limb rot, with some late leafspot and tomato spotted wilt virus. GA T-2741, TX 896100, and OK-CF83-126 showed good levels of resistance to white mold and rhizoctonia limb rot. Several other entries had less disease than Florunner. Differential harvest dates were as follows: Oct. 18 = UF 79308-3, OK-CF83-126, UF 85112, and UF 79308-1-Z23; Oct. 25 = NC 7, Florunner, GA T-2741, GA T-2842, GA T-2844, GA T-2846, TX 896100, F 1316, F 439OT, and F 1250; and Nov. 2 = UF 91108, F 92107, F 92118, and F 81206-2-Z16. Harvest dates were based on visual estimates of maturity and previous experience. Late-maturing entries were still in the field during a killing freeze (29°F) on Oct. 31. Thus, the late-maturing entries probably did not reach full yield potential.

<sup>†</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.

**Table 9. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at Headland, AL (irrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
NC 7	5,300 ab <sup>†</sup>	82.3	70.3	1.0	2.7	74.0	51.3	99.3
Florunner	4,556 b	—	67.3	3.2	2.0	74.7	—	64.0
GA T-2741	5,899 a	—	68.3	5.7	1.3	74.7	—	45.0
GA T-2842	5,118 ab	—	64.3	6.0	1.7	72.0	—	56.0
GA T-2844	5,445 ab	—	67.3	3.0	2.0	72.3	—	61.7
GA T-2846	5,318 ab	—	72.0	3.7	2.0	77.7	—	59.7
UF 79308-3	4,538 b	—	67.7	5.3	1.0	74.0	—	67.7
UF 91108	6,026 a	—	71.3	3.3	1.3	76.3	—	71.3
TX 896100	5,881 a	—	69.7	3.3	1.7	74.7	—	70.7
OK-CF83-126	5,590 ab	—	66.3	5.3	1.0	70.7	—	51.7

\* Contributing author Bostick reported that thrip damage was slight to moderate in early June for all entries. White mold was moderate and tomato spotted wilt virus was slight. Differential harvest dates as determined by hull scrape method were as follows: Sep. 14 = UF 79308-3 and GA T-2842; Sep. 17 = NC 7, Florunner, GA T-2846, GA T-2844, OK-CF83-126, TX 896100, and GA T-2741; and Oct. 1 = UF 91108.

<sup>†</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.

— Data not reported.

**Table 10. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at College Station, TX (irrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
NC 7	3,605 d <sup>†</sup>	—	74.1	0.9	2.0	77.1	—	96.2
Florunner	4,024 b-d	—	75.5	4.7	1.0	81.2	—	54.2
GA T-2741	4,282 ab	—	74.5	5.1	0.2	79.8	—	38.2
GA T-2842	4,353 ab	—	71.0	6.5	0.6	78.1	—	49.1
GA T-2844	4,310 ab	—	72.5	4.1	1.4	78.0	—	54.1
GA T-2846	4,026 b-d	—	75.5	4.1	0.7	80.3	—	51.1
UF 79308-3	4,144 bc	—	75.4	3.6	1.5	80.5	—	61.0
UF 91108	3,901 b-d	—	75.6	4.1	0.4	80.1	—	64.1
TX 896100	4,720 a	—	74.8	4.0	0.4	79.2	—	54.7
OK-CF83-126	3,701 cd	—	69.6	6.6	0.6	77.0	—	44.7
<b>Local checks</b>								
Marc I	4,153 bc	—	73.2	4.2	1.9	79.2	—	57.2
F 1011	4,021 b-d	—	74.7	4.8	0.7	80.1	—	52.2
Tamrun 88	3,662 d	—	76.7	4.6	0.6	81.8	—	52.2
AT-127	3,598 d	—	74.0	3.4	1.2	78.6	—	60.0

\* Contributing author Smith reported that field conditions were damp during planting. Rain, after planting, washed soil on top of germinating seed, causing poor stands in reps 1, 2, and 3. Plots with poor stands were hand replanted and seemed to recover quickly. Some pod disease, probably enhanced by early wet soils, was noted in spite of fungicide treatment. Major pathogens were *Sclerotium rolfsii* and *Fusarium* spp.

<sup>†</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.

— Data not reported.

**Table 11. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at Stephenville, TX (irrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
NC 7	3,030 d <sup>†</sup>	—	56.3	7.1	2.5	65.9	30.2	82.2
Florunner	5,202 ab	—	74.4	4.6	0.4	79.3	—	63.4
GA T-2741	4,914 b	—	72.5	4.8	0.2	77.5	—	41.4
GA T-2842	5,541 a	—	68.5	6.9	0.4	75.8	—	54.2
GA T-2844	4,897 b	—	70.6	4.7	0.8	76.2	—	58.3
GA T-2846	5,244 ab	—	71.4	6.1	1.1	78.5	—	56.6
UF 79308-3	4,921 b	—	70.8	5.5	0.7	76.9	—	63.1
UF 91108	4,853 b	—	71.1	5.4	0.4	76.9	—	66.9
TX 896100	5,204 ab	—	71.2	5.4	0.3	76.8	—	59.6
OK-CF83-126	3,700 c	—	70.7	4.3	0.6	75.6	—	48.7

\* Contributing author Simpson stated that the growing season was hot and dry, then cool and wet in September.

Leafspot infection occurred late but was not a factor. Peanuts did not mature. The growing season was cut short by a heavy frost on Oct. 22. As is usually the case at Stephenville, the Virginia-type entry did not mature and performed poorly.

<sup>†</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.

— Data not reported.

**Table 12. Yield and grade characteristics of Virginia-Runner-type peanut lines grown at Fort Cobb, OK (irrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
NC 7	3,592 e-g <sup>†</sup>	—	60.9	1.9	6.1	68.9	—	85.4
Florunner	3,758 ef	—	64.8	4.0	5.8	74.5	—	59.5
GA T-2741	4,613 a	—	66.5	5.0	1.3	72.8	—	42.5
GA T-2842	4,046 a-e	—	61.3	4.5	5.3	71.0	—	51.4
GA T-2844	4,409 a-d	—	67.9	2.6	2.0	72.5	—	58.5
GA T-2846	4,591 ab	—	69.0	2.5	3.6	75.1	—	57.3
UF 79308-3	3,774 ef	—	61.4	3.8	6.4	71.5	—	61.4
UF 91108	3,985 c-e	—	70.4	2.9	1.9	75.1	—	61.4
TX 896100	4,545 a-c	—	62.5	4.5	5.3	72.3	—	64.1
OK-CF83-126	3,781 ef	—	65.6	3.0	2.5	71.1	—	50.2
<b>Local checks</b>								
Georgia Runner	4,038 b-e	—	65.8	4.3	4.3	74.3	—	62.0
Okrun	3,963 de	—	66.0	3.8	4.3	74.0	—	60.4
AT-127	3,872 d-f	—	64.5	2.5	5.3	72.3	—	67.9
Ket Cu-1	3,736 ef	—	57.1	7.1	2.4	66.6	—	46.0
Tamrun 88	3,365 fg	—	63.9	4.9	4.1	72.9	—	53.8
Marc I	3,123 g	—	59.9	3.9	7.4	71.1	—	55.4

\* Contributing author Kirby reported a good season early, with excellent crop prospects in early September based on vine appearance. However, very dry and cool conditions changed these prospects. Sclerotinia blight was present in moderate levels late in the season. Although rainfall plus irrigation provided adequate water, several consecutive days of 100°F resulted in few pods being set in late July and August. A hard killing freeze on Oct. 30 resulted in low grades, immaturity, and freeze damage.

<sup>†</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.

— Data not reported.

**Table 13. Yield and grade characteristics of Spanish-Valencia-type peanut lines grown at Tifton, GA (irrigated)\***

Entry	Yield (lb/acre)	% Fancy	% TSMK	% OK	% DK	% Meat	% ELK	g/100 Seed
GA T-2741 <sup>†</sup>	4,168 a <sup>‡</sup>	0.0	77.4	1.9	0.8	80.1	1.3	40.6
Tamspan 90	3,060 b	0.0	70.4	5.1	0.9	76.4	0.8	39.4
Toalson	2,776 c	0.0	65.8	6.2	0.1	72.1	0.7	38.9
Spanco	2,582 c	0.0	65.1	8.4	1.7	75.2	1.0	41.7
Tamnut 74	2,565 c	0.0	64.8	9.6	0.5	74.9	0.0	34.3
Pronto	2,561 c	0.0	65.0	9.0	1.1	75.1	0.3	42.4
Starr	2,560 c	0.0	65.0	9.7	0.5	75.2	0.1	34.5
Georgia Red	2,106 d	25.6	60.5	6.2	4.7	71.4	4.7	48.5
Val. McRan	1,486 e	5.1	56.5	11.9	0.4	68.8	1.3	40.0
N.M. Val. C	1,395 e	4.5	51.4	15.4	1.2	68.0	0.2	39.7
N.M. Val. A	1,321 e	4.4	49.5	15.3	1.9	66.7	0.1	37.2

\* Contributing author Branch reported excellent growth and development throughout the growing season. However, irrigation was needed in May and June. White mold (*Sclerotium rolfsii* Sacc.) was the predominant pathogen. Valencia entries were dug early because of severe disease pressure. More tomato spotted wilt virus was noted than in 1992, but at still relatively low levels. Differential harvest dates were as follows: Aug. 11 = N.M. Val. A, N.M. Val. C, and Val. McRan; Aug. 18 = Starr, Tamnut 74, Pronto, Spanco, and Georgia Red; Aug. 24 = Toalson and Tamspan 90; and Sep. 7 = GA T-2741.

<sup>†</sup> GA T-2741 is a small-seeded runner type that was included for comparison with Spanish types of similar seed size.

<sup>‡</sup> Values within same column followed by same letter are not significantly different at the 5% probability level.



**Table 14. Mean yields (lb/acre) of entries by production area and by locations with common entries**

<b>Entry</b>	<b>VC*</b>	<b>SE†</b>	<b>SW‡</b>	<b>8 LOC§</b>
Florunner	2,814	4,008	4,328	3,830
NC 7	3,316	4,911	3,409	3,949
UF 79308-3	2,420	4,414	4,280	3,865
UF 91108	2,951	5,085	4,246	4,237
GA T-2741	2,539	4,876	4,603	4,189
GA T-2842	3,131	4,540	4,647	4,228
GA T-2844	2,921	5,016	4,539	4,313
GA T-2846	2,847	4,587	4,620	4,164
TX 896100	2,892	5,249	4,823	4,500
OK-CF83-126	1,876	4,108	3,650	3,378

\* VC = Suffolk, VA; and Lewiston, NC.

† SE = Tifton, GA; Marianna, FL; and Headland, AL.

‡ SW = College Station, TX; Stephenville, TX; and Fort Cobb, OK.

§ 8 LOC = Suffolk, VA; Lewiston, NC; Tifton, GA; Marianna, FL; Headland, AL; College Station and Stephenville, TX; and Fort Cobb, OK.

